



IMPROVING MACHINE AVAILABILITY

and Reducing maintenance cost for a
Textile Equipment Manufacturer

PROJECT HIGHLIGHTS

- ▶ Industry: Manufacturing
- ▶ Revenue: >\$500M
- ▶ Technologies: IoT, Sensors, Analytics, Predictive Algorithms, Open Source
- ▶ Geographic Location: Europe
- ▶ Employee Strength: 5,000

BUSINESS SITUATION

A world leader in manufacturing fiber spinning machines needed to guard against unexpected component failures. Complex machines have multiple components such as inverters, gear boxes and motors. A single textile mill can have 100-200 of such machines. Unexpected component failures can result in unplanned downtimes and cause loss of revenue as well as customer trust. Our customer needed a solution that would not only help overcome these issues but predict failures much before they occurred, to initiate corrective measures.

SOLUTION

Birlasoft developed and implemented an innovative, predictive modeling solution based on an advanced machine learning platform utilizing sensors to collect machine data and machine behavioral patterns. This solution includes installing a 'black box' containing sensors, on each machine, that records data and syncs with the backend system. This collected data is analyzed in real time using Birlasoft's predictive algorithms to enhance failure prediction with improved diagnostic capabilities.

Some key challenges that this solution addresses include:

- Improved job scheduling leading to better customer service
 - Reduced downtime by avoiding emergency maintenance tasks
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OUTCOME

With the ability to integrate sensor data from the application as well as integration of maintenance data, work orders, and operations information from backend ERP, the solution offers plant operators a complete view of the current conditions and emergent maintenance requirements, for weeks ahead.

Some key benefits include:

- Predictive model prevents unplanned outage of machines
- Higher customer satisfaction due to lesser downtime
- Higher revenue due to increased machine utilization



RESOURCES

connectwithus@birlasoft.com | birlasoft.com

Enterprise to the Power of Digital™

Birlasoft combines the power of domain, enterprise and digital technologies to reimagine business processes for customers and their ecosystem. Its consultative and design thinking approach makes societies more productive by helping customers run businesses. As part of the multibillion diversified CK Birla Group, Birlasoft with its 10,000 engineers, is committed to continuing our 150 year heritage of building sustainable communities.